Lake Perris and Perris Dam Fact Sheet

Roles and Responsibilities:

Owner:	California Department of Water Resources (DWR) Division of Operations and Maintenance
Engineer:	DWR Division of Engineering
State Regulator:	DWR Division of Safety of Dams
Water Contractor:	Metropolitan Water District of Southern California
Camping, Parks and Recreation:	California Department of Parks and Recreation
Fishing and Wildlife:	California Department of Fish and Game
Boating:	California Department of Boating and Waterways

Issue

Engineers in the Department of Water Resources (DWR), with support from expert consultants, have identified potential seismic safety risks in a section of the foundation of Perris Dam.

There is no imminent threat to life or property. However, in the interest of ensuring the maximum public safety for those using and living downstream of the lake, the state has determined that it is necessary to lower the water level while additional analysis is performed.

Background

DWR is required by state law to hire independent consultants consisting of geotechnical and geology experts every five years to evaluate the safety of all jurisdictional State Water Project dams, including Perris Dam. In one of these independent evaluations, it was recommended that DWR reanalyze the seismic stability of Perris Dam. As a result, an extensive review of existing data, new geotechnical explorations, and engineering analyses have been conducted by DWR. This work has lead to the current findings contained in the draft "Perris Dam Foundation Study" report.

Although the dam itself was found to be well-constructed, the report identified potential deficiencies in the foundation that need to be addressed. The report also recommends that the water level of the lake be lowered 27 feet below the spillway crest elevation as an interim safety measure until long term plans are developed. This will reduce reservoir storage by about 42% (approximately 52,362 acre-feet) and surface reservoir area will be reduced by about 18% (410 acres). The reservoir level will be lowered over several weeks and done in a way that ensures the safety and integrity of Perris Dam. A reservoir drawdown plan must be developed and approved by the Division of Safety of Dams before the water level can be lowered.

Next Steps

DWR has convened an Independent Consulting Board comprised of internationally recognized experts in dam safety engineering and geology, to review and report on the engineering findings regarding the seismic stability of Perris Dam. It is anticipated the board will meet and make initial recommendations to DWR in October 2005.

Once the findings of the board are known, additional studies could be required to obtain further information about the identified deficiencies or the state may directly proceed to develop repair alternatives. In either case, DWR will be working closely with other involved agencies, including Metropolitan Water District of Southern California, the California Department of Parks and Recreation, Department of Fish and Game, and the Department of Boating and Waterways, on the appropriate next steps. An estimate on how long it will take to perform any additional analysis and/or repairs will be developed after the findings of the board are presented.

In addition, DWR is currently working on the required environmental documentation related to those actions and future efforts.

For more information, visit www.perrisdam.water.ca.gov <*http://www.perrisdam.water.ca.gov/*>

Lake Perris Facility Information

Location

Northwestern Riverside County, approximately 13 miles southeast of the City of Riverside and about 65 miles east of of Los Angeles.

Owner

California State Department of Water Resources

Period Built

1970 to 1974

Perris Dam

Type:	Zoned Earthfill
Embankment Volume:	20,000,000 cubic yards
Height:	128 feet
Crest Elevation:	1,600 feet
Crest Length:	11,600 feet
Crest Width:	40 feet

Lake Perris

Maximum Operating Water Surface Elevation:	1,588 feet
Minimum Operating Water Surface Elevation:	1,540 feet
Storage at Spillway Crest Elevation:	131,452 acre-feet
Maximum Operating Storage (@ Elev. 1588):	126,841 acre-feet
Minimum Operating Storage (@ Elev. 1540):	37,013 acre-feet
Shoreline at Spillway Crest Elevation:	10 miles
Surface Area at Spillway Crest Elevation:	2,318 acres
Surface Area at Maximum Operating Elevation:	2,292 acres
Surface Area at Minimum Operating Elevation:	1,540 acres

Spillway

Type:	Ungated ogee crest with concrete baffled chute and riprapped channel
Spillway Crest Elevation:	1,590 feet

Inlet Works

Type:	Buried 8-foot 6-inch concrete pipeline from terminus of Santa Ana Valley Pipeline above right abutment (looking downstream).
Capacity:	469 cubic feet per second

Outlet Works

Type:	12-foot 6-inch diameter lined tunnel under left abutment (looking downstream), with a steel delivery manifold.
Intake Structure:	Five-level vertical tower with 72-inch shutoff butterfly valves
Control:	Regulation of flow at delivery manifold by water users.
Design Delivery:	1,000 cubic feet per second
Blowoff Structure:	6-foot-wide by 12-foot-high slide gate downstream of delivery/ manifold with bolted bulkhead at downstream terminus.
Capacity:	3,800 cubic feet per second